THE PEOPLE OF SOUTH CENTRAL CONGOLAND.[1]

MR. HILTON-SIMPSON'S interesting book is a valuable supplement to the monumental work recently published by the Colonial Department of the Belgian Government on the "Ethnography of the Bushongo and Allied Peoples," a work written in French by Mr. Emil Torday, the celebrated Hungarian explorer, and Mr. T. Athol Joyce, of the British Museum. The Torday-Joyce contribution to ethnology adopted necessarily a somewhat impersonal aspect, and the work of Mr. Hilton-Simpson now gives us a more popular and personal account of the expedition so ably organised by Mr. Emil Torday. At the same time, though the "Land and Peoples of the Kasai" may be described as "popular" in style, it is fraught with scientific interest. It contains many valuable illustrations, "prises sur le vif," the untouched photographs of the author, besides the beautiful and accurate drawings in colour by Mr. Norman Hardy, who accompanied the expedition during the first half of its stay in Congoland. Amongst these last must be mentioned with special praise for their artistic charm as well as their absolute accuracy, "Wissmann Pool" and "An Incident at Pana" (a charging buffalo).

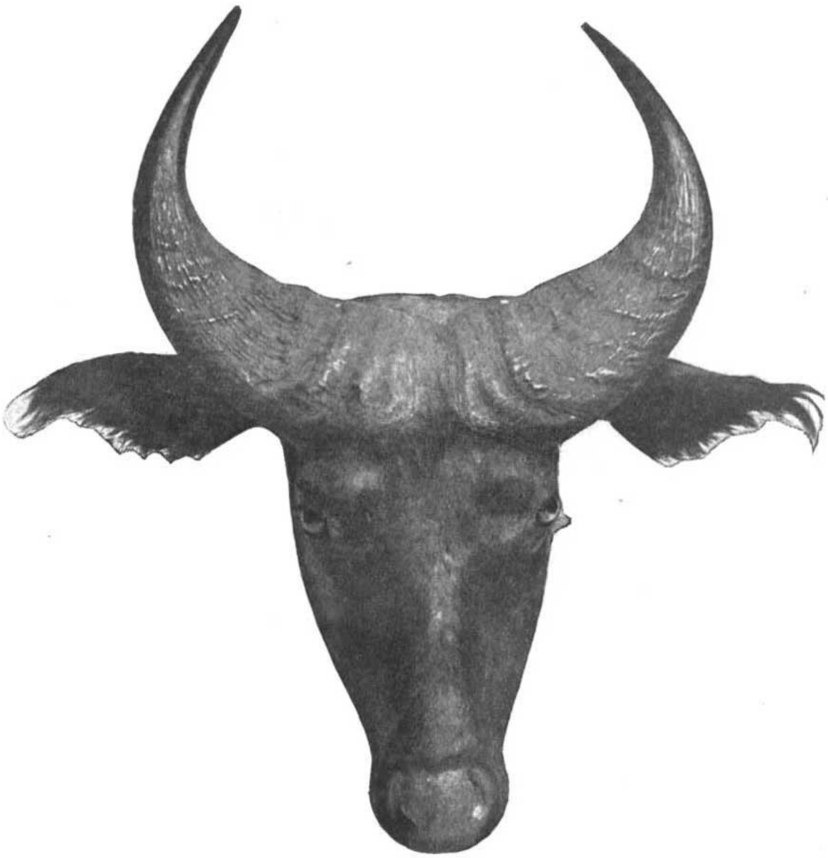

FIG. 1.—Head of *Bos caffer simpsoni.* From "Land and Peoples of the Kasai."

The party of which Mr. Hilton-Simpson was a member arrived at Boma, the capital of the Independent State of the Congo, at the close of 1907. Here they had to visit the offices of the Etat Civil, where they filled up "matriculation" forms dealing with their ages, their occupations, and the dates of their parents' birth, and other "such matters of great interest to the authorities," who in the Congo State still too often belong to that narrow-minded bureaucratic class which is rapidly becoming extinct in Germany, Holland, and France. Nevertheless, the Belgians gave the kindest and most whole-hearted assistance to Mr. Torday's expedition. Their mission was officially recognised by the Government; they were spared all hindrances and given all due protection. And when it is remembered that their avowed object was to collect for the British Museum, and they came at a time when English public opinion, with much justification, was showing great indignation with the Leopoldian *régime,* it must be admitted that the Belgian authorities on the Congo knew how to rise above considerations of narrow nationalism and to remember that they were there to govern a State which at that period was still international in its avowed character.

From the Lower Congo the party was conveyed by railway and steamer to the Kasai. This river at once contrasted with the main Congo by "simply teeming with hippopotami, crocodiles, and innumerable varieties of aquatic and other birds"; for owing to some unexplained reason the destruction of animal life along its banks had been very little compared with the devastation which has fallen on the main Congo through the acquisition of guns by the natives and the thirst for killing which has so long animated all white pioneers, settlers, and steamer passengers in that region. An interesting description is given of the headquarters of the Kasai Company at Dima, near the confluence between the Kasai and the Kwango (the Kwango was the first of the great Congo tributaries which entered into history, and was reached by the Portuguese as early as the seventeenth century, though its lower course remained unexplored and mysterious down to the close of the nineteenth century). It is interesting to note that at Dima, as elsewhere in the Congo, Belgian enterprises are obliged to have recourse to the employment of educated British negroes from West Africa—Sierra Leone, the Gold Coast, and Lagos. Here is a sufficient answer to the ignorant folk who sneer at the education of the negro. As a matter of fact, public education in the British West African colonies is far too much neglected by the British Government, especially in the Gold Coast. If it were improved, there is no saying how far it might not extend British influence and the spread of the English language throughout West and Central Africa.

The party continued its journey up the Kasai, noting on the way an extraordinary epidemic of

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[1] "Land and Peoples of the Kasai." Being a narrative of a two years' journey among the cannibals of the equatorial forest and other savage tribes of the south-western Congo. By M. W. Hilton-Simpson. Pp. xx+356. (London: Constable and Co., Ltd., 1911.) 16*s.* net.

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disease which had broken out amongst the hippopotami on the Kasai and Sankuru. The loss of life amongst the hippopotami had been so great that the Europeans had been obliged to employ men with canoes to push out into the current the carcases which were continually being stranded on the shores of the river, the stench from which was appalling. Then follows a description of the Sankuru and the marvellous forests on its banks, its red, rocky cliffs rising in places to a height of 200 feet, in the crannies of which nested innumerable grey parrots. The mysterious yuka referred to by the author as a tree-dwelling nocturnal beast uttering a weird cry was probably a tree-hyrax.

The Basonge, the Batetela (and their love of painting pictures and use of signalling gongs), the Bakongo of Central Africa (not to be confused with the quite distinct Bakongo of western Congoland), the cannibal Bankutu, the Batwa dwarfs, the Batende, Babunda, Baluba, Basongomeno, and, above all, the aristocratic Bushongo, are most interestingly described. The Batwa dwarfs seem to have varied from four feet eight to five feet in height (a photograph is given of them). The journey through the Bankutu cannibals was not devoid of risk; the travellers owed their safety probably to the curiosity excited by their presence without an escort, yet well supplied with means. On p. 147 an accurate and very effective description is given of the "airlessness," disheartening mist, and excessive damp, of the dense forest. "In the daytime the atmosphere of the woods resembles that of a hothouse; at night that of a well."

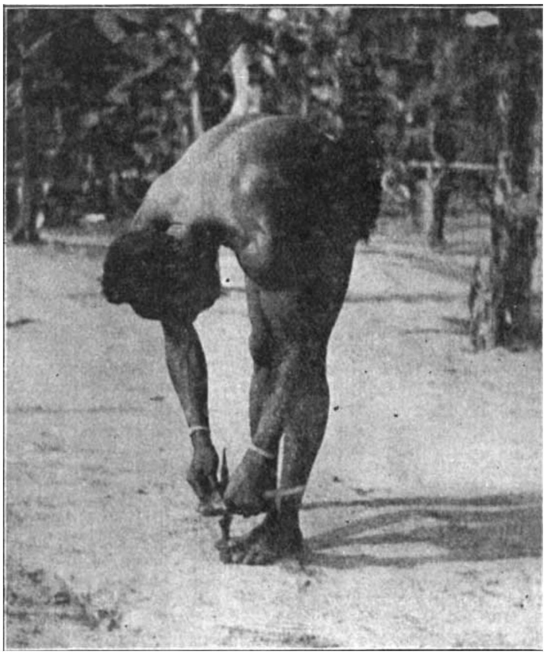

FIG. 2.—An Akela cutting up his food. From "Land and Peoples of the Kasai."

The zoological discoveries of the expedition due to the author of this book, consisted mainly of a new species of very small duyker antelope (*Cephalophus simpsoni*), and an interesting transitional type of buffalo, a subspecies also named after Mr. Simpson, which differs from the dwarf buffalo of the Congo in being black-haired (chocolate in the females) and not reddish-brown, and in having horns set much wider apart than those of *Bos caffer nanus*. The bosses of the horns in the male are almost completely joined over the forehead.

Mr. Hilton-Simpson's photographs of the negroes of South-Central Congoland will be of much interest to anthropologists and ethnologists. Although mostly small, it is evident that many of them would bear enlargement and prove very useful to the picture galleries of museums.

H. H. JOHNSTON.

THE EFFECT OF GRASS ON FRUIT TREES.[1]

AMONG the many interesting results obtained at the Woburn Experimental Fruit Farm perhaps the most remarkable is the discovery that growing grass exerts a deleterious effect on fruit trees. This was one of the earliest observations, and was dealt with at some length in the third report in 1903, but a number of experiments have since been made, and are described in the thirteenth report recently issued.

The general result of grassing the ground after the trees have been planted is the arrestation of all healthy growth and the absolute stunting of the tree. The leaves become light in colour and unhealthy, the bark similarly becomes light coloured, while the fruit loses its green matter and becomes waxy yellow or brilliant red. This effect is particularly marked in the case of apple trees. If the grassing is done gradually the trees accommodate themselves somewhat to the altering conditions, and finally make growth and yield fruit, though they never do so well as when grass is absent.

A number of hypotheses have been examined to account for these phenomena. The grass roots affect the aëration of the soil, the amount of carbonic acid present, the soil temperature, moisture, food supply, &c., and they may, as the United States Bureau of Soils claims, excrete poisonous substances. The earlier investigations showed that neither the aëration nor temperature effects played any part in the matter, so far at least as tree growth is concerned; the present experiments are therefore directed to the investigation of the other factors. Several results proved that the harmful effects on the trees were not due to any abstraction of moisture by the grass. The affected trees exhibited none of the signs of suffering from drought or of recovery during wet seasons, while determinations of the water content of the grass and tilled soil at intervals throughout a year revealed no differences sufficient to account for the effects. Still more conclusive evidence was obtained by growing trees in pots, some with, others without, grass, and keeping all equally moist; the deleterious effect of the grass remained equally marked.

It is more difficult to test the effect of grass on the food supply of the tree, because our knowledge of what constitutes the food either of fruit trees or of grass is still far from complete. Pot experiments with the ordinary nutrient substances all led to negative results, and the conclusion is drawn that the effect on the food supply is not the determining factor.

Nor did it appear that the growth of grass caused any sufficient physical alteration in the soil to account for the results. There remains only the hypothesis that plant roots excrete some substance toxic to the tree roots, and for this the authors claim to have a fair amount of indirect and some direct evidence. When perforated trays of sand containing growing grass were placed on the surface of the soil in which the trees were growing, so that the washings from the grass reached the tree roots with practically no exposure to the air, they had a deleterious effect nearly, if not quite, as great as when grass was

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[1] Thirteenth Report of the Woburn Experimental Fruit Farm. By the Duke of Bedford, K.G., F.R.S., and Spencer U. Pickering, F.R.S.

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